

FIG.1

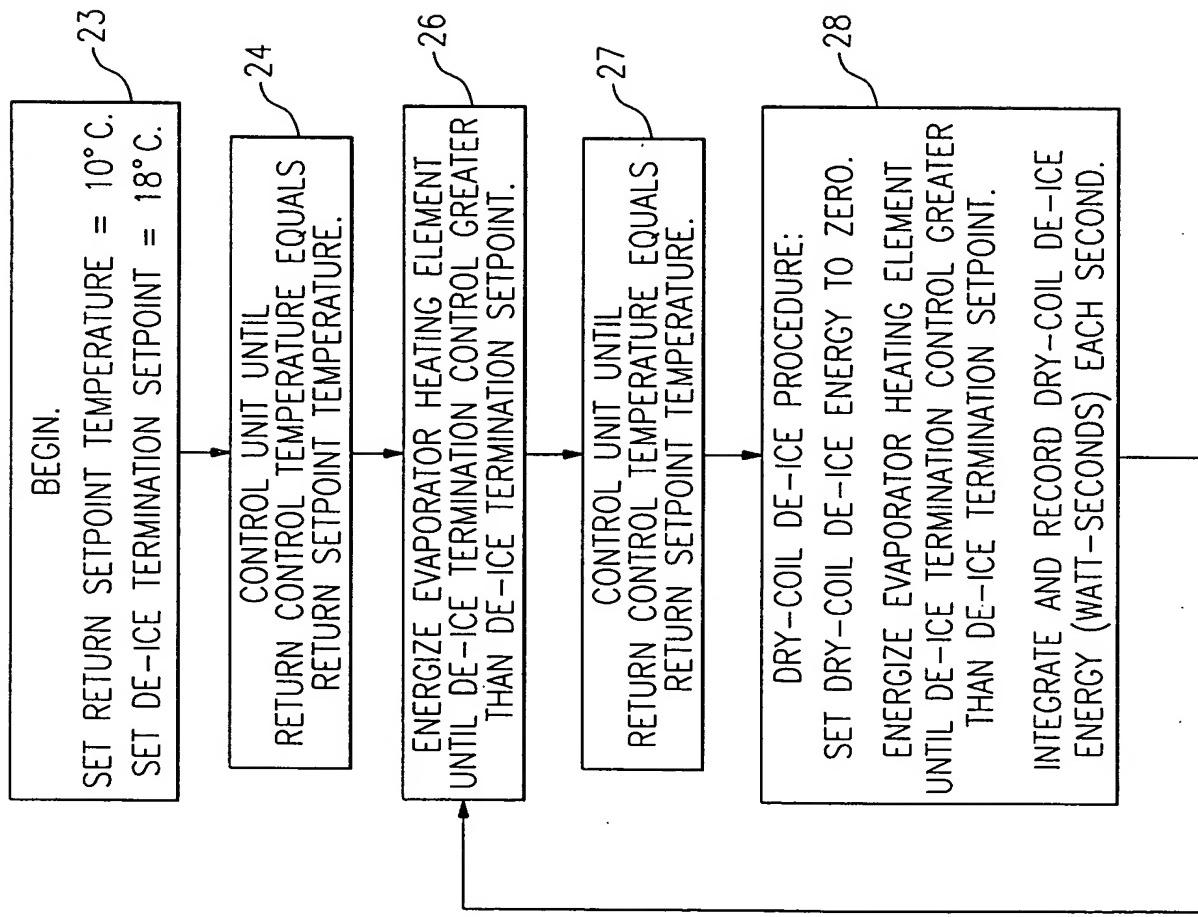


FIG. 2A

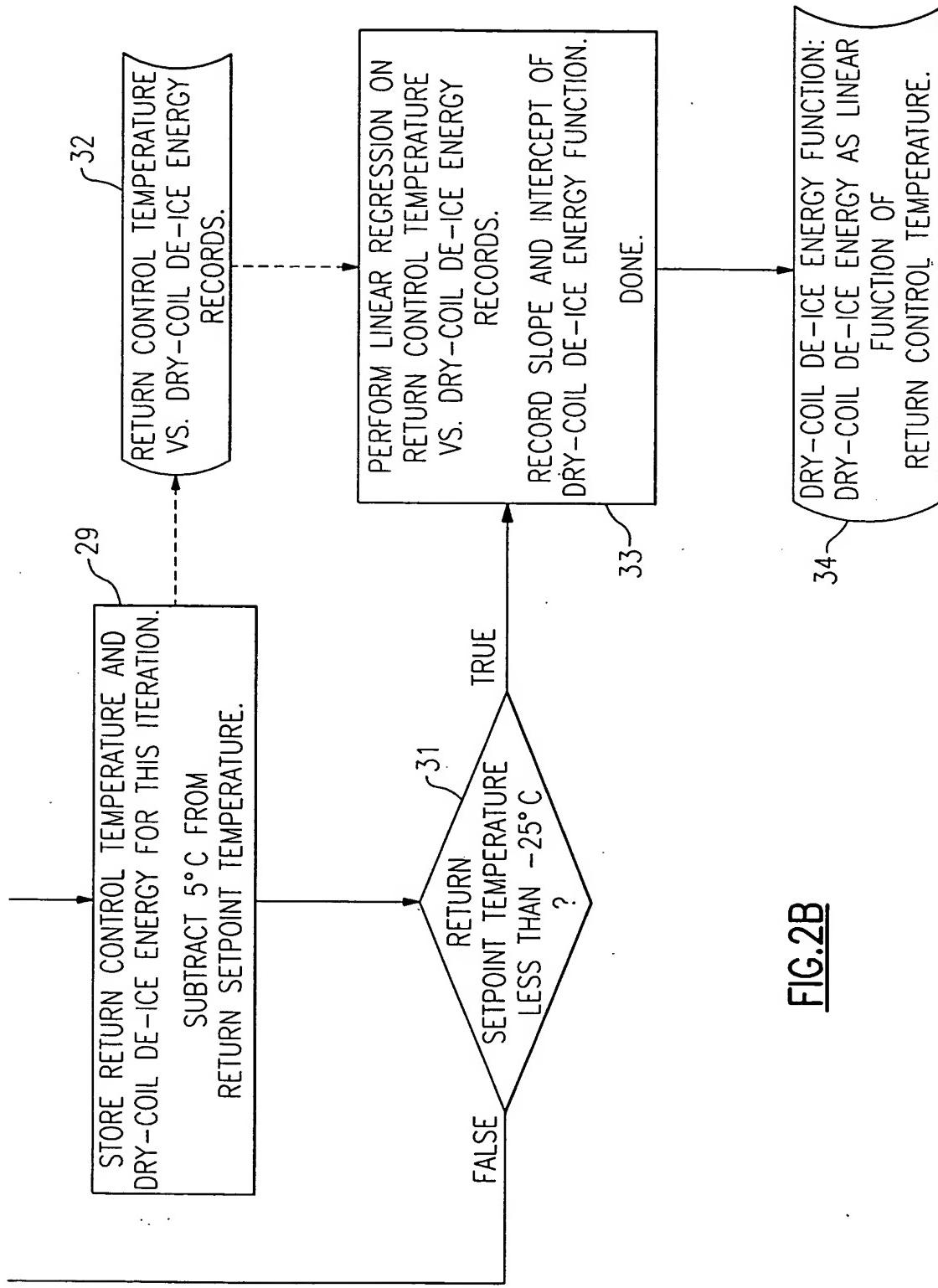


FIG.2B

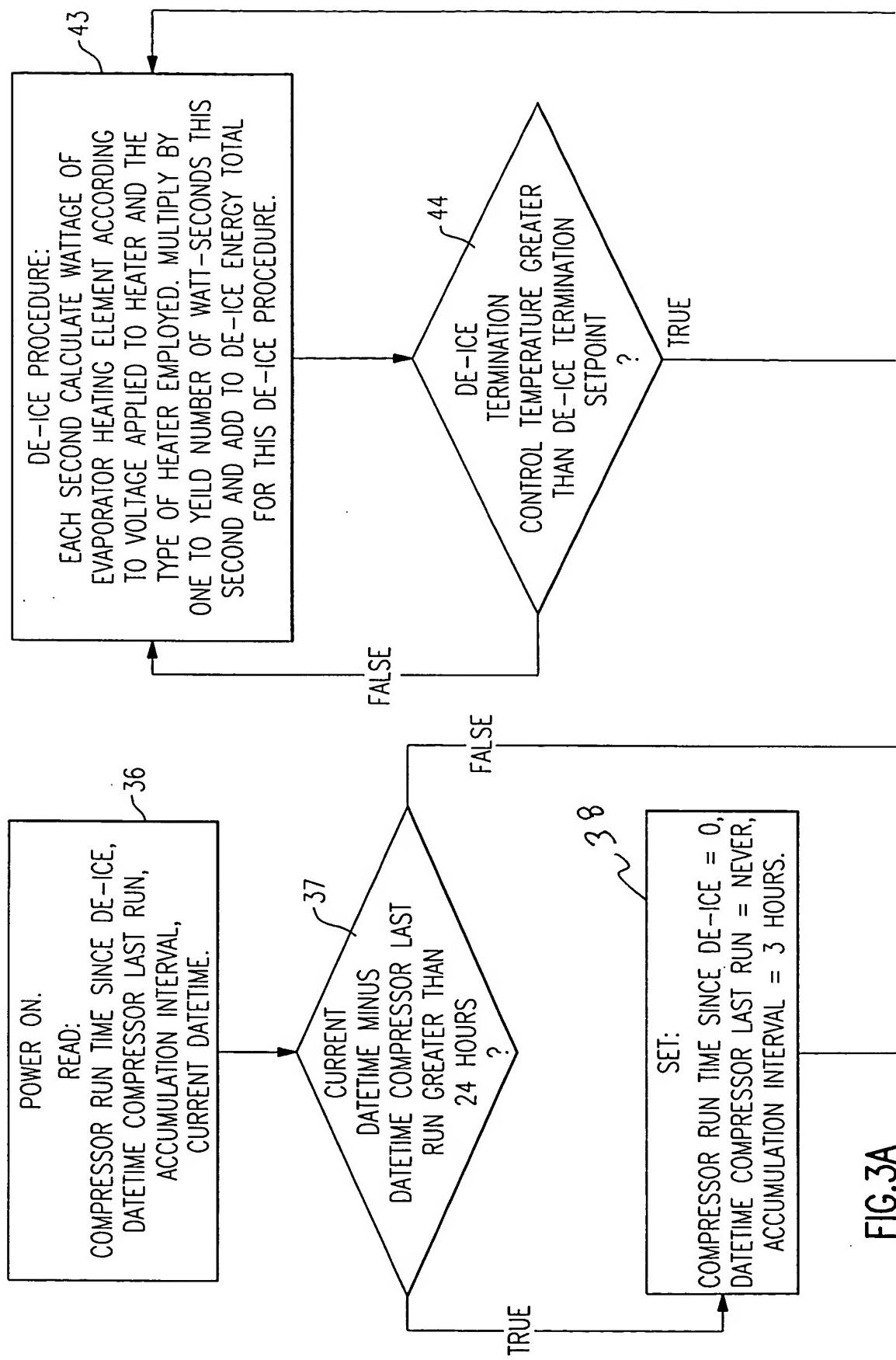


FIG.3A

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CALCULATE NEXT ACCUMULATION INTERVAL:

CALCULATE DRY-COIL DE-ICE ENERGY ACCORDING TO RECORDED RETURN CONTROL TEMPERATURE BY USING PREDETERMINED DRY-COIL DE-ICE ENERGY FUNCTION
SUBTRACT DRY-COIL DE-ICE ENERGY FROM TOTAL DE-ICE ENERGY TO YIELD NET DE-ICE ENERGY ATTRIBUTES TO FROZEN CONDENSATE REMOVED FROM EVAPORATOR COIL.
CALCULATE AMOUNT OF ICE MELTED ACCORDING TO NET DE-ICE ENERGY, SPECIFIC HEAT OF ICE, HEAT OF FUSION OF ICE, AND RETURN CONTROL TEMPERATURE THAT WAS RECORDED BEFORE THE DE-ICE PROCEDURE.

CALCULATE CURRENT RATE OF FROZEN CONDENSATE ACCUMULATION ACCORDING TO AMOUNT OF ICE MELTED AND COMPRESSOR RUN TIME SINCE DE-ICE.
CALCULATE NEW ACCUMULATION INTERVAL ACCORDING TO A PREDETERMINED MAXIMUM ALLOWABLE FROZEN CONDENSATE AND THE CURRENT RATE OF CONDENSATE ACCUMULATION.
SET COMPRESSOR RUN TIME SINCE DE-ICE = 0.
RESUME AIR SPACE TEMPERATURE MAINTENANCE.

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Maintain Air Space Temperature:
EVAPORATOR FAN IS ENERGIZED.
COMPRESSOR IS ENERGIZED AS REQUIRED.
INCREMENT COMPRESSOR RUN TIME SINCE DE-ICE ONE SECOND EACH SECOND COMPRESSOR RUNS.
SET DATETIME COMPRESSOR LAST RUN = NOW EACH SECOND COMPRESSOR RUNS.

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COMPRESSOR
RUN TIME SINCE DE-ICE
GREATER THAN ACCUMULATION
INTERVAL
?

TRUE

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BEGIN DE-ICE PROCEDURE:
SET DE-ICE ENERGY = 0,
RECORD RETURN CONTROL TEMPERATURE.

FIG.3B